BEFORE THE
ILLINOIS COMMERCE COMMISSION

AT&T Communications of Illinois, Inc., TCG Illinois and TCG Chicago	)	
	)	
Petition for Arbitration of Interconnection Rates, Terms and Conditions and Related Arrangements With Illinois Bell Telephone Company d/b/a SBC Illinois Pursuant to Section 252(b) of the Telecommunications Act of 1996	)	**Docket No. 03-0239**

PUBLIC VERSION

REBUTTAL TESTIMONY

OF

CRAIG MINDELL

ON BEHALF OF

SBC ILLINOIS

EXHIBIT 6.1

Dated: June 11, 2003

03-0239
SBC IL 6.1
C. Mindell
6-18-03

ISSUES
Interconnection 1, 5, 6, 7, 8 and 9
Pricing 1

I. INTRODUCTION

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

My name is Craig S. Mindell. My business address is Three Bell Plaza, Room 710, Dallas, Texas, 75202.

Q. ARE YOU THE SAME CRAIG S. MINDELL WHO SUBMITTED DIRECT TESTIMONY IN THIS DOCKET?

A. Yes.

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. I offer rebuttal testimony, responsive to staff witness James Zolnierek, for interconnection issues 1, 5, 6, 7, 8, and 9. These issues may be grouped as follows:

A. Points of Interconnection in Independent Company Territory

Interconnection Issues 1, 9

B. Limitations on POI Placement

Interconnection Issues 3, 5, 6, 7, and 8

Additionally, I offer rebuttal testimony responsive to staff witness Mark A. Hanson on Pricing Issue 1.

II. POINTS OF INTERCONNECTION IN INDEPENDENT COMPANY TERRITORY

Interconnection Issue 1: May AT&T interconnect indirectly to SBC Illinois via another LEC's tandem?

Q. WHAT IS THE ISSUE?

A. AT&T proposes to establish a point of interconnection ("POI") with SBC Illinois at a Verizon tandem switch located in Verizon territory, some 25 miles away from the edge of SBC Illinois' service area.

Q. WHAT IS STAFF'S RECOMMENDATION ON WHETHER AT&T CAN INTERCONNECT WITH SBC ILLINOIS THROUGH A VERIZON TANDEM?

A. Staff agrees with SBC Illinois that the interconnection agreement should not include AT&T's proposed language for section 3.2.5.1 which states that AT&T may interconnect with SBC Illinois through a third party's tandem. While recommending that the text be excluded from the interconnection agreement, however, Staff says that if AT&T can work with a third party to deliver its traffic to SBC Illinois, SBC Illinois is obligated to accept the traffic. Staff's recommended language for section 3.2.5.2 is the following:

> AT&T may, where it makes arrangements with a third party to do so, provide facilities on its side of the POI using a third party's tandem switch or other facilities. AT&T, however, remains responsible for the facilities on its side of the POI and for ensuring that any facilities provided by a third party comply with the provisions of this interconnection agreement.

Q. DO YOU AGREE WITH STAFF'S PROPOSED LANGUAGE?

A. As long as it is accompanied by the language that SBC Illinois proposes for Issue 9 that makes it clear that the POI must be located within SBC Illinois' operating territory, SBC Illinois can accept Staff's proposed language for Issue 1.

Interconnection Issue 9: Should AT&T offer a POI within SBC's franchise area, to trade SBC local/intraLATA traffic?

Q. WHAT IS THIS ISSUE?

A. This issue is closely related to Interconnection Issue 1. Here, SBC Illinois proposes language for section 4.3.1 that makes it clear that the point of interconnection between AT&T and SBC Illinois must be located within the operating territory in the LATA where SBC Illinois operates as an incumbent LEC.

Q. DOES STAFF AGREE WITH YOUR POSITION THAT SBC ILLINOIS' ADDITIONAL ILEC OBLIGATIONS FOR INTERCONNECTION DO NOT EXTEND OUTSIDE OF ITS FRANCHISED ILEC TERRITORY?

A. Yes. On line 1074 Staff concludes "thus, SBC is not obligated, under current Commission or FCC rules to interconnect at points outside its incumbent local exchange carrier network." Staff recommends, therefore, that the Commission adopt SBC Illinois' proposed language for Article 4, section 4.3.1 with respect to this issue with a slight modification. Staff's proposed language is set forth in its answer to SBC Illinois Data Request No. 8, which is attached hereto as Schedule CSM-1.

Q. DOES STAFF'S LANGUAGE IN ARTICLE 4, SECTION 4.3.1 PROVIDE YOU SUFFICIENT ASSURANCE THAT THE POI WILL BE LOCATED WITHIN SBC ILLINOIS OPERATING TERRITORY?

A. Yes.

Q. DO YOU HAVE ANYTHING TO ADD TO STAFF'S OBSERVATIONS?

A. No.

II. LIMITATIONS ON POI PLACEMENT

Interconnection Issue 6: In a one-way trunking architecture, does SBC Illinois have an obligation to compensate AT&T for any transport used by AT&T to terminate Local/IntraLATA traffic originated by SBC Illinois if AT&T's POI and/or switch is outside the local calling area and the LATA where the call originates?

Interconnection Issue 7: When AT&T has requested a POI located outside the local calling area of an SBC Illinois end user originating the call, should AT&T be financially responsible for the transport outside the local calling area for Local/IntraLATA traffic originated by SBC Illinois?

Q. WHAT DOES STAFF SAY ABOUT SBC ILLINOIS' PROPOSAL THAT AT&T SHOULD PAY FOR TRAFFIC IT RECEIVES FROM SBC ILLINOIS WHICH HAS BEEN TRANSPORTED FURTHER THAN 15 MILES?

A. Staff, at lines 809-912, rejects this proposal for two principle reasons. First, Staff believes that the Commission Decision in Docket No. 01-0614 forecloses further consideration of this issue. Second, Staff believes that my data does not demonstrate that AT&T has elected the type of "expensive interconnection" that would be precluded by the FCC's First Report and Order, ¶ 199.

Q. HOW DO YOU RESPOND?

A. The first point is primarily a legal one and I will leave that to the lawyers to address in their briefs. However, it is crucial for this Commission to understand that the federal law to which Dr. Zolnierek cites does not preclude the Commission from requiring AT&T to pay for transport in the appropriate circumstances. This has been recognized by the FCC in the Verizon Pennsylvania 271 Order (which I discussed in my direct testimony) and by a January, 2003 Decision of the United States District Court for the Eastern District of North Carolina in an Arbitration Decision involving MCI (which I also discussed in my direct testimony at lines 318-325).

Second, the consideration of "expensive interconnection" remains as relevant as ever and Dr. Zolnierek offers no evidence which undermines my demonstration that AT&T's proposal is "expensive interconnection".

Q. WHAT DOES DR. ZOLNIEREK SAY ABOUT YOUR DEMONSTRATION OF "EXPENSIVE INTERCONNECTION"?

A. My direct testimony demonstrates two facts. First, that the longer interconnection trunks required by AT&T's proposal require SBC Illinois to bear an additional costs in LATA 358 -- between 4.7 and 12.2 million dollars in one-time expenses. This does not even include ongoing expenses associated with maintaining these facilities. Dr. Zolnierek objects to my demonstration that AT&T's selection of network architecture causes SBC Illinois to bear these additional costs (Staff Ex. 1.0, lines 855-889). As I understand it, he believes that my study was based on "intra-network costs" (i.e., costs completely within SBC Illinois' network) and does not accurately reflect the transport costs that are incurred when the network of two different carriers are connected. (Staff Ex. 1.0, lines 864-889). Dr. Zolnierek argues that intra-network calls are cheaper than inter-network calls, because there are always a number of calls which remain within a switch and are not transported to other switches.

Q. HOW DO YOU RESPOND TO THIS CRITICISM?

A. My study controls for the effects of calls that originate from and terminate to subscribers served by the same switch. Because my study compares calls between SBC Illinois and CLECs, on the one hand, with calls exclusively between SBC Illinois switches, on the other hand, intra-switch calls are not included in my study. Therefore, this criticism of Dr. Zolnierek is mistaken.

Q. DOES DR. ZOLNIEREK CHALLENGE THE MAGNITUDE OF COSTS YOU CALCULATED IN YOUR STUDY?

A. No. Dr. Zolnierek does not question my calculation that it costs SBC Illinois an additional 4.7 to 12.2 million dollars to interconnect under AT&T's proposal.

Q. IN YOUR VIEW, IS THIS TRANSPORT COST "*DE MINIMUS*"?

A. It is certainly not *de minimus* on an aggregate basis. Of course, on a per minute basis it may result in very modest charges to the CLECs using the transport, but the point is that the overall expense incurred by SBC Illinois to provide this additional transport is not insignificant.

Q. DR. ZOLNIEREK ALSO CRITICIZES YOUR STUDY BECAUSE YOU HAVE NOT "SHOWN THAT THERE IS A LESS EXPENSIVE METHOD OF INTERCONNECTING THE TWO EXISTING NETWORKS" (STAFF EX. 1.0 AT LINES 872-73). HOW DO YOU RESPOND?

A. There is a less expensive method of interconnecting the SBC Illinois and the AT&T networks – namely, interconnecting at the switch locations that AT&T has established across the Chicago LATA. AT&T – more so than most, if not all, other CLECs in Illinois – has deployed many switches and they are located in a number of geographic areas such as downtown Chicago, Lisle, Oakbrook, and Rolling Meadows. The geographical dispersion of the AT&T Illinois switches provides it the perfect opportunity to designate points of interconnections that are closer to SBC Illinois switches and therefore "less expensive" for the interconnection of existing networks. As I demonstrate below, in situations where AT&T has the opportunity to ask SBC Illinois to route traffic to a nearby AT&T switch, it does not do so. In many cases, AT&T insists that SBC Illinois transport traffic right past a nearby AT&T switch to another AT&T switch 35 miles away. For

local traffic, when two callers are in the same local calling area, it is not the most efficient internetwork solution to connect the callers 30 miles away from the closest switch to those end users, in both networks, to a switch 3 or 4 times the distance. The only way to give AT&T the proper economic incentives to change this situation is to permit SBC Illinois to charge AT&T for the transport that it uses. This "cost causers pays" approach will lead to the economically optimal solution for both networks and will produce the "less expensive" interconnection that Dr. Zolnierek is searching for.

Q. WHERE ARE THE AT&T SWITCH LOCATIONS IN THE CHICAGO LATA?

A. AT&T's switches are designated (as are all network elements) by 11 digit alphanumeric codes. A list of switches taken from the local exchange routing guide ("LERG"), and the addresses at which they are located, are as follows:

Switch	Address	City
CHCGIL24DS0	717 S WELLS ST	CHICAGO
CHCGILCGDS0	85 W CONGRESS P	CHICAGO
CHCGILCGDS1	85 W CONGRESS P	CHICAGO
CHCGILCGDS3	85 W CONGRESS P	CHICAGO
CHCGILCLDS7	10 S CANAL ST	CHICAGO
CHCGILCLDS9	10 S CANAL ST	CHICAGO
CHCGILCLDSC	10 S CANAL ST	CHICAGO
LSLEILAADS1	4513 WESTERN AV	LISLE
LSLEILAADS2	4513 WESTERN AV	LISLE
OKBRILOADC2	1000 COMMERCE D	OAK BROOK
OKBRILOAD	1000	OAK BROOK

S2	COMMERCE D	
OKBRILOAD	1000	OAK BROOK
S3	COMMERCE D	
RLMDILAGD	3820 GOLF RD	ROLLING ME
S1		
RLMDILAGD	3820 GOLF RD	ROLLING ME
S2		
RLMDILAGD	3820 GOLF RD	ROLLING ME
S4		
RLMDILAGD	3820 GOLF RD	ROLLING ME
S6		

Q. HOW DOES AT&T INSTRUCT SBC ILLINOIS WHERE TO ROUTE CALLS?

A. AT&T, as do all local exchange carriers, publishes in the Local Exchange Routing Guide the telephone codes (area codes and prefixes) that are located in each switch. When an SBC Illinois caller dials a telephone number, that number must be routed to the switch to which that code is assigned.

Q. DOES AT&T ASK THAT SBC ILLINOIS ROUTE TRAFFIC TO THE CLOSEST AT&T SWITCH?

A. No. AT&T assigns its NXX codes to different rate centers dispersed throughout the LATA. The following chart shows the code assignments for Chicago satellite cities of Joliet, Aurora, Elgin and Waukegan. As the chart shows, AT&T frequently asks SBC Illinois to route traffic to a distant AT&T switch when there are closer AT&T switches available.

164

	Rate Center of Prefix	Area Code	Prefix	AT&T Switch Address	AT&T Switch City	Distance --Rate Center to AT&T Switch
*	AURORA			4513 WESTERN AV	LISLE	14.2
	AURORA	630	870	717 S WELLS ST	CHICAGO	35.9
	AURORA	630	870	717 S WELLS ST	CHICAGO	35.9
	AURORA	630	423	10 S CANAL ST	CHICAGO	35.8
	AURORA	630	429	10 S CANAL ST	CHICAGO	35.8
	AURORA	630	449	1000 COMMERCE D	OAK BROOK	20.1
*	ELGIN	630	503	3820 GOLF RD	ROLLING MEADOWS	13.3
	ELGIN	847	531	717 S WELLS ST	CHICAGO	35.2
	ELGIN	847	531	717 S WELLS ST	CHICAGO	35.2
*	JOLIET			4513 WESTERN AV	LISLE	18.4
	JOLIET	815	531	1000 COMMERCE D	OAK BROOK	23.1
	JOLIET	815	207	1000 COMMERCE D	OAK BROOK	23.1
	JOLIET	815	280	717 S WELLS ST	CHICAGO	32.9
	JOLIET	815	530	10 S CANAL ST	CHICAGO	33.1
	JOLIET	815	212	10 S CANAL ST	CHICAGO	33.1
*	WAUKEGAN			3820 GOLF RD	ROLLING MEADOWS	23.4
	WAUKEGAN	847	377	10 S CANAL ST	CHICAGO	34.7
	WAUKEGAN	847	672	717 S WELLS ST	CHICAGO	35.1
	WAUKEGAN	847	672	717 S WELLS ST	CHICAGO	35.1
	WAUKEGAN	847	672	717 S WELLS ST	CHICAGO	35.1
	WAUKEGAN	847	672	717 S WELLS ST	CHICAGO	35.1

* Closest Switch (In three of the rate centers closest switch was not used for any code assigned).

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166 Thus, even though AT&T could offer a "less expensive" interconnection using its

167 existing switches in their existing locations, it chooses not to.

Q. WHY WOULD AT&T NOT DO SO?

A. I cannot say. AT&T is assigning a customer with an Aurora telephone number to a switch in Oak Brook, and another customer with a different Aurora telephone number to a switch in the Loop. Only AT&T can explain why it routes traffic the way it does. I can say, however, that 85% of the traffic between SBC and AT&T switches is traffic from SBC Illinois to AT&T, and AT&T need not be concerned with the costs or efficiencies of these calls, except between their switches and their end users (which AT&T controls through its assignment of telephone numbers). As for the distance between SBC Illinios and AT&T switches, 85% of the time, AT&T has absolutely no economic incentive to establish routing arrangements which minimize transport. Under the current interconnection agreement, SBC Illinois must transport traffic to AT&T for free. Under the current interconnection agreement, and under the AT&T/Staff proposal, there is no mechanism in place (be it a pricing mechanism or otherwise) which allows AT&T and SBC Illinois to jointly figure out what would be the least expensive form of transport and interconnection *for both parties.*

Q. DO YOU HAVE SPECIFIC INFORMATION ABOUT THE PERCENTAGE OF TRAFFIC THAT AT&T ASKS SBC ILLINOIS TO ROUTE PAST NEARBY AT&T SWITCHES TO MORE DISTANT LOCATIONS?

A. Yes, below I include a chart that displays this information for four (4) Chicago satellite cities.

188 **Percent Local Traffic routed from SBC switches in Rate Center to AT&T**

RATE CENTER	AT&T Switch address	Switch City	Percent traffic	Distance
AURORA	4513 WESTERN AV	LISLE	***	14.2
	1000 COMMERCE D	OAK BROOK	***	20.1
	3820 GOLF RD	ROLLING ME	***	25.3
	10 S CANAL ST	CHICAGO	***	35.8
	717 S WELLS ST	CHICAGO	***	35.9
	85 W CONGRESS P	CHICAGO	***	36.3
AURORA Total			100%	
ELGIN	3820 GOLF RD	ROLLING ME	***	13.3
	4513 WESTERN AV	LISLE	***	20.8
	1000 COMMERCE D	OAK BROOK	***	21.8
	10 S CANAL ST	CHICAGO	***	34.9
	717 S WELLS ST	CHICAGO	***	35.2
	85 W CONGRESS P	CHICAGO	***	35.6
ELGIN Total			100%	
JOLIET	4513 WESTERN AV	LISLE	***	18.4
	1000 COMMERCE D	OAK BROOK	***	23.1
	717 S WELLS ST	CHICAGO	***	32.9
	10 S CANAL ST	CHICAGO	***	33.1
	85 W CONGRESS P	CHICAGO	***	33.3
	3820 GOLF RD	ROLLING ME	***	36.1
JOLIET Total			100%	
WAUKEGAN	3820 GOLF RD	ROLLING ME	***	23.4
	10 S CANAL ST	CHICAGO	***	34.7
	717 S WELLS ST	CHICAGO	***	35.1
	85 W CONGRESS P	CHICAGO	***	35.1
	1000	OAK	***	35.7

	COMMERCE D	BROOK		
	4513 WESTERN AV	LISLE	***	40.4
WAUKEGAN Total			100%	

189

190 A. Thus, in looking at the Aurora example, it can be seen that the closest AT&T switch to
191 the SBC Illinois Aurora switch is in Lisle, 14 miles away. AT&T assigns its NXX codes
192 such that 95% of the local calls originating on the SBC Illinois Aurora switch and
193 terminating on AT&T's network are transported by SBC Illinois further away than the
194 AT&T Lisle switch, and further away *in the same direction*. The same pattern holds true
195 for Elgin, Joliet and – to a lesser extent – Waukegan.

196 **Q. DR. ZOLNIEREK HAS ARGUED IN THE PAST THAT AT&T'S USE OF**
197 **TRANSPORT IS SUBJECT TO SOME DISCIPLINE BECAUSE AT&T IS**
198 **RESPONSBILE FOR PROVIDING TRANSPORT FROM ITS SWITCH IN**
199 **CHICAGO TO ITS END USERS LOCATED IN JOLIET, ELGIN AND OTHER**
200 **DISTANT LOCATIONS. DO YOU AGREE WITH THAT LINE OF THINKING?**

201 A. No, because I don't believe that the majority of traffic going from SBC Illinois to AT&T
202 is returned by AT&T to these distant locations. Rather, I believe that a majority of this
203 traffic is terminated by AT&T to customers close to its Chicago switches.

204 **Q. WHY DO YOU SAY THAT?**

205 A. I'd like to answer that question by introducing the notion of a "zero sum game." An
206 example of a zero sum game is football. Every time one team gains yards, the other team
207 loses the same number of yards. Assuming a gain can be represented by a positive
208 number, and a loss by a negative number, the sum of yards gained between the two teams
209 for any single play is zero. At the end of the game the total yards gained by both teams is

still zero. The opposite of a zero sum game is a "win/win" situation. In a win/win situation it is possible for sides to work together for the benefit of all.

In network design, local calls are a win/win situation. If two callers are relatively close, and they are served by nearby switches, both networks are better off than if they are served by distant switches because transport is minimized. This game may only be played, of course, when there is a choice of switches in each network. If one network has only one switch, then the game becomes zero sum, as the distance between it and the other network's switch is apportioned between them.

Toll calling is a different story. If two callers are some distance away from each other, the apportionment of the distance between them by the two networks is always zero sum. The more one handles, the less the other need handle.

Given AT&T's available switches, and its use of those switches on an other than win/win basis (e.g., by assigning an Aurora number to a downtown Chicago switch) it appears that AT&T is working with toll calls rather than local calls.

In Illinois, calls that are dialed as toll on a retail basis have inter-network distances handled by access, so that revenue is shared. The more one network loses in the network provisioning costs, the more it gets reimbursed in the access revenue. Both parties are made whole. The one area of long distance where this isn't the case is FX. Here, as the Commission has stated, we have long distance calls (calls where the distances are handled in physical networking on a zero sum basis) without access (the losing network is not made whole).

My conclusion from the lack of win/win routing where AT&T has a choice of switches is that the FX tail is wagging the local dog. In other words, AT&T is making routing decisions that are appropriate for FX traffic, not local traffic, and from this I conclude that a majority of the traffic from SBC Illinios to AT&T is not returned by AT&T to the local calling area in which it originated. This conclusion is supported by the fact that 85% of the traffic exchangesd between the parties flows from SBC illinois to AT&T.

Q. IS IT YOUR CONCLUSION THAT AT&T'S ROUTING DECISIONS DO NOT CREATE THE OPTIMAL NETWORK CONFIGURATION FOR LOCAL CALLING?

A. That is correct. Too many other types of calling seem to be in the picture.

Q. WOULD THE CHANGES YOU ARE PROPOSING FORCE AT&T TO MAKE ANY CHANGES THAT IMPACT THE LOCAL CALLING AREAS OF ITS END USERS?

A. No. I am proposing changes in *routing* of calls, not the *retail rating* of calls. Under my proposal SBC Illinois would hand traffic off to AT&T at the nearest switch location. AT&T would remain free to provide its end users the same services AT&T is providing today.

Q. WOULD A CHANGE IN SWITCH ASSIGNMENTS CREATE A CHANGE IN CUSTOMER TELEPHONE NUMBERS?

A. No. Local Number Portability insures that customers may be assigned to a different switch than his current one, and retain his telephone number.

Issue 8: **FX Calling Transport When AT&T has requested a POI located outside the local calling area of Ameritech Illinois's end user originating the call, should AT&T be financially responsible for the transport outside the local calling area for FX traffic originated by Ameritech Illinois?**

Q. WHAT DOES ISSUE 8 INVOLVE?

A. Issue 8 involves whether SBC Illinois is required to provide free long haul transport for FX calls. As I explained in my direct testimony, an FX call is one which appears to be a local call to the calling party, but in fact the call is routed to a party in a distant exchange. By this device, a call that would normally be toll (with the attendant toll charges paid by the calling party) is converted into a local call (with the effect that the calling party incurs no charges).

Q. WHAT IS SBC ILLINOIS' POSITON ON THIS ISSUE?

A. SBC Illinois simply proposes that AT&T be required to pay for the transport SBC Illinois provides for these FX calls beyond the local calling area. SBC Illinois cannot charge its customer or AT&T for these calls, so it is providing a totally free service. SBC Illinois is *not* asking to charge access or retail rates – it is merely asking to recover its costs through its approved TELRIC-based transport rates. Only AT&T "causes" these costs and only AT&T is in a position to charge any end user for this FX service. At the very least, AT&T should compensate SBC Illinois for these transport costs it causes.

Q. WHAT IS DR. ZOLNIEREK'S POSITION ON THIS ISSUE?

A. Dr. Zolnierek does not agree that SBC Illinois should be able to recover its excess transport costs. As I understand it, he has two objections. First, he argues that SBC Illinois' position was rejected in Docket No. 01-0614 and in the Virginia Verizon Arbitration decided by the FCC's Wireline Competition Bureau. Second, he argues that

SBC Illinois' proposal is not "symmetrical" because SBC Illinois does not propose to pay AT&T excess transport charges when AT&T carries FX calls beyond the local calling area to SBC Illinois' network. (Lines 971-983).

Q. HOW DO YOU RESPOND TO THE FIRST ARGUMENT?

A. Again, this is primarily a legal issue that will be addressed in our briefs. I would simply like to point out that the Commission's Order in Docket No. 01-0614 recognized that FX calling merited special consideration. In particular, it directed Staff to examine the cost and benefits of addressing this issue in more detail. It appears to me, therefore, that this issue is very much an open one before the Commission. With respect to the Virginia Verizon Arbitration Order, I will only note a few important distinctions. For instance, as I understand it, Verizon advocated that all FX traffic be treated as *toll traffic* and that *access charges apply*. SBC does not take that position here. I also understand that there was no specific discussion of the POI/transport issue in the Wireline Competition Bureau's decision. Rather, the discussion was limited to whether there is a current system available to distinguish between FX calls and local calls for purposes of applying access charges to the FX calls. Again, this is not SBC Illinois' proposal in this proceeding.

Q. HOW DO YOU RESPOND TO DR. ZOLNIEREK'S SECOND ARGUMENT WITH RESPECT TO THE "SYMMETRY" OF YOUR PROPOSAL?

A. Dr. Zolnierek assumes that only AT&T would be required to pay for "excess" transport used to carry FX calls outside of the local calling area. This is not the case. Rather, my proposal is that *each* party should compensate the other party whenever it provides transport in excess of the 15 mile local calling area for FX traffic. Thus, when AT&T

transports an FX call to an SBC Illinois POI located greater than 15 miles from AT&T's originating switch, SBC Illinois would expect to be billed by AT&T at TELRIC base transport rates. In this sense, my proposal is absolutely symmetrical and fair. To make this clear, I propose to add the following language to the FX language: "The provision for payment of transport in excess of 15 miles for FX traffic shall apply reciprocally to both SBC Illinois and AT&T".

Q. DO SBC ILLINIOS' ROUTING DECISIONS IMPACT AT&T'S COSTS IN THE SAME WAY THAT AT&T'S ROUTING DECISIONS IMPACT SBC ILLINOIS' COSTS?

A. No. As I discussed above, traffic between AT&T and SBC Illinois is *widely out of balance*. In particular, 85% of the traffic originates on SBC Illinois' network and terminates on AT&T's network. A mere 15% of the traffic flows in the other direction. This single fact undermines the fairness argument which I believe Dr. Zolnierek was attempting to make. In fact, the FX arrangement proposed by Staff is *unfair* because it requires SBC Illinois to incur costs to provide a service for which it gains absolutely no revenue. Once again, these FX calls originate on SBC Illinois' network and SBC Illinois transports those calls as far as 30 miles *without the ability to charge its end user or AT&T*. SBC Illinois thus incurs a cost with no revenue. This is a fundamentally inequitable situation and SBC Illinois continues to urge this Commission to fix it.

Q. ARE THERE OTHER REASONS THAT SBC ILLINOIS' ROUTING DECISIONS CANNOT IMPACT AT&T IN THE SAME WAY THAT AT&T'S ROUTING DECISIONS IMPACT SBC ILLINOIS?

A. SBC Illinois does not have the flexibility to assign numbers from one rate center to switches throughout the entire metro area. SBC Illinois assigns its prefixes to switches in

local calling areas. And to the extent that SBC Illinios does increase AT&T's transport costs with an FX offering, as I discussed above, SBC Illinois is happy to compensate AT&T for those costs on the same basis.

Q. HOW DO YOU RECOMMEND THAT THE COMMISSION RESOLVE INTERCONNECTION ISSUE 8?

A. I urge the Commission to adopt SBC Illinois' proposed language for Section 4.3.3, 4.3.3.1 and 4.3.3.2 for FX calls.

IV. PRICING

Pricing Issue 1: Should AT&T's rates for SBC's use of Space License apply on a per trunk group or per switch basis?

Q. WHY ARE YOU ADDRESSING PRICING ISSUE 1?

A. I did not address this issue in my direct testimony, and I am addressing it now to explain that Staff's support of AT&T's position is based on a reading of AT&T's Tariff that does not make sense from a network perspective. In terms of the way networks are set up, and the plain meaning of the AT&T Access tariff with respect to networks, Staff is mistaken to conclude a relationship is implied between numbers of DS1s (which the tariff is based on) and numbers of trunk groups (which are not mentioned in the pricing schedule.)

Q. WHAT IS THE AT&T POSITION THAT STAFF AGREES WITH?

A. AT&T's price schedule includes a volume discount based on the number of DS1s that SBC terminates through equipment placed in SBC's office. AT&T claims that the discount depends not only on numbers of DS1s, but on where the trunks embedded in those DS1s come from. In AT&T's view, only the DS1s within a single "trunk group"

can be counted toward the volume discounts in the AT&T rate schedule. For example, if SBC Illinois has 100 DS1s that terminate at an AT&T central office and if those 100 DS1s include trunks from 10 separate trunk groups, under AT&T's theory SBC Illinois never qualifies for any discount. AT&T looks only at the number of DS1s in a trunk group -- in this case 10 -- regardless of how many DS1s SBC Illinois terminates at that central office. As Mr. Silver testifies, the result is that SBC Illinois can never (or only rarely) qualify for any of the volume discounts that AT&T appears to offer in its proposal.

It is as if a garage offered a bulk rate discount on the number of parking spaces a customer leased, and then claimed that the discount only applied for each color of car. Under this improbable scheme, rather than basing the discount on numbers of total spaces leased, the garage owner calculates the volume discount based on the number of spaces filled by yellow cars. A separate calculation is made for the volume discount available for green cars, red cars, and so on.

Q. WHAT IS SBC ILLINOIS' POSITION?

A. SBC Illinois points out that car color is as irrelevant to parking costs as trunk groups are to a space license rate. Instead of an irrelevant distnction that artificially raises rates, SBC Illinois should be able to use all of its DS1s that terminate at an AT&T central office to calculate the volume discount.

Q. TO SHOW THE IRRELEVANCE OF THE TRUNK GROUP DISTINCTION, PLEASE EXPLAIN A FEW TERMS. WHAT IS A FACILITY?

A. A facility is a physical medium which carries a signal. Examples of facilities are a pair of copper wires, a radio wave, a fiber system, and a coaxial cable.

Q. WHAT IS A DS1?

A. A DS1 is a type of facility capable of carrying 24 voice conversations at a time. It can be carried on copper or fiber. For the volume of calls between AT&T and SBC Illinois , fiber is used most often. Physical equipment that SBC Illinois places in AT&T's area (and for which it pays a space license fee for the use of space, electricity and cooling of that equipment) would typically be configured as follows:

A pair of fibers are brought from an SBC Illinios office to an AT&T office and terminated in a piece of electronics which changes the light signals into electrical signals, dropping out (in the case of an OC12 system) 12 DS3s. Each DS3 is then demultiplexed (split down) into 28 DS1s. Each DS1 is handed to AT&T, which then multiplexes it back up to whatever volume AT&T needs, to send to whatever switch the DS1 must be directed to. If that switch is located at that office, it will accept the DS1 directly, with no further multiplexing involved.

Q. WHAT IS A TRUNK GROUP?

A. Trunk groups are defined (programmed) in switches. They are groups of logical paths a call is directed to when a call is dialed. Imagine an SBC Illinios end user in Naperville, pulling dial tone from a Naperville switch and dialing an AT&T customer served by AT&T's Lisle switch 6 miles away. When the Naperville switch sees the destination of the call (AT&T, Lisle) it will select the trunk group that connects Naperville and Lisle. Let's say that trunk group has 48 trunks (48 voice paths that can be used). Any trunk in that group might be selected by the switch, and such selection is made in some specified order (least used trunk is siezed first, for example).

Let's now say that there is a need for AT&T Lisle customers to dial Naperville, and that the need is for an additional 48 trunks. AT&T and SBC Illinois could either define a second trunk group, one in the other direction, or the companies could decide to double the size of the first group. Either way 96 calls could be carried at the same time, and either way 4 DS1s would be necessary in AT&T's space area.

Q. COULD AT&T DISCERN, LOOKING ONLY AT THE OC12, DS3'S AND DS1S IN ITS SPACE LICENSE AREA, HOW MANY TRUNK GROUPS THE 4 DS1S ARE SPLIT INTO?

A. No. The trunk groups are defined only in the Lisle and the Naperville switches. The facilities between the two are identical, whether the 4 DS1s are 2 groups of 48 trunks, or 1 group of 96 trunks.

Q. WHAT ARE THE REASONS FOR ROUTING TRAFFIC ON DIFFERENT TRUNK GROUPS, RATHER THAN AGGREGATING TRAFFIC ONTO A SINGLE GROUP?

A. The largest reason is that switching technology limits the size of a trunk group. In a Lucent 5ESS, for example, only 1951 trunks may be placed in a single group. That calculates to 81.2 DS1s, rendering half of the discount rates technically infeasible.

Q. ARE THERE OTHER REASONS?

A. Yes. The biggest reason that trunk members are usually not even as numerous in a group as the maximum (82 DS1s worth) is that a trunk group can encompass only two switches, one on each end of the group. Because SBC Illinois customers are served from more than 150 different switches in the Chicago LATA, 150 different trunk groups must be configured to carry their traffic to AT&T.

Q. IS IT POSSIBLE TO COMBINE TRAFFIC FROM SEVERAL SWITCHES ONTO A SINGLE TRUNK GROUP?

A. Only with the use of another switch. If calls from four SBC Illinois switches were to be brought to an AT&T switch, trunks from those switches would be terminated into an SBC Illinois tandem switch, and from that tandem additional trunks would be set up to carry the same traffic to the AT&T switch.

This exercise could become massively expensive, and at some point technically infeasible.

Q. PLEASE EXPLAIN THE EXPENSE.

A. The piece of equipment required in a switch to create a trunk is a switch port. A switch port carries a capital cost of $1000 per DS1. SBC Illinois has roughly 1200 DS1s terminating at one AT&T building in Chicago (CHCGIL24). Assuming that 2/3 of those DS1s are direct end office trunks, (a normal networking assumption) and they were redesigned to run through a tandem in order to be placed into a single trunk group, the tandem would have to be configured with 1600 additional DS1 trunk ports--800 trunk ports to bring the DS1s in from the SBC Illinois end offices, and 800 more trunk ports to send the trunks on to AT&T. The additional 1600 switch ports would carry a capital cost of $1,600,000. In addition to the capital costs, the cost of reconfiguration, and ongoing maintenance expense makes the project prohibitive. The project becomes infeasible when the capacity of most tandems is only 4200 DS1 ports to begin with, and the tandems do not have 38% spare capacity.

Q. WOULD SUCH A PROJECT HAVE ADDITIONAL COSTS FOR AT&T AS WELL?

A. Yes, in two different ways. First, if SBC Illinois were to reconfigure thousands of trunks, AT&T would similarly be required to do so. Second, AT&T has multiple switches in many of their buildings. If AT&T were similarly forced to combine trunk groups from different switches to meet SBC Illinois as a single trunk group, AT&T's costs would skyrocket as well. It is doubtful that such a project is what AT&T has in mind.

Q. WHAT IS YOUR CONCLUSION ON PRICING ISSUE 1?

A. That Staff's recommendation should be rejected and that the Commission should make it clear that the calculation of volume discounts for the space license rate should *not* be based on the artifical limitation of "trunk groups".

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes.

FIRST SET OF DATA REQUESTS
BY SBC ILLINOIS TO THE STAFF OF
THE ILLINOIS COMMERCE COMMISSION
Docket No. 03-0239

Request No. 8: Attached is the language proposed by AT&T (bolded and underlined) and by SBC Illinois (bolded) for Article 4, Section 4.3.1 through 4.3.3. Please show, in redline form, the precise edits that Dr. Zolnierek proposes to make to this language in his discussion of Interconnection Issues 1, 5, 6, 7, 8 and 9.

4.3.1 **Each party will be responsible (including financial responsibility) for providing all of the facilities and engineering its network on its respective side of each POI. Each Party shall compensate the terminating Party under terms of Article 21 for any transport that is used to carry exchange service traffic between the POI and the switch serving the terminating end user, except that where AT&T's terminating switch is located in another LATA, SBC shall compensate AT&T as the terminating party under terms of Article 21 for any transport that is used to carry SBC's exchange service traffic between the designated AT&T POP within the LATA and the AT&T terminating switch in the other LATA.**

4.3.1. Each Party shall provision and maintain its own one (1)-way trunks to deliver calls originating on its own network and routed to the other Party's network. Each Party will be responsible (including financial responsibility) for providing all of the facilities and engineering on its respective side of each point of interconnection ("POI") except as set forth in Section 4.3.2 and 4.3.3 below. AT&T must establish one or more POI(s) within the operating territory in the LATA where Ameritech-Illinois operates as an incumbent LEC and such POI(s) must be used by AT&T to originate AT&T AT&T Local/IntraLATA traffic in such LATA. Ameritech Illinois shall deliver its originating traffic to AT&T at AT&T's switch or such other mutually agreeable POI(s) and such switch or POI(s), whichever is applicable, must be within the LATA and within Ameritech Illinois' operating territory where the traffic originates.

4.3.2 In a one (1) way trunking architecture, each Party originating Local/IntraLATA traffic ("Originating Party") shall compensate the Party terminating such traffic ("Terminating Party") for any transport that is used to carry such Originating Party's Local/IntraLATA traffic between the POI and the Terminating Party's switch serving the terminating end user or its designated Point of Presence ("POP") subject to the following conditions:

4.3.2.1 If Ameritech Illinois is the Originating Party, the POI and AT&T's terminating switch (or POP if applicable) must be within the same LATA and within Ameritech Illinois's local calling area where the call originates. If the POI and AT&T's terminating switch (or POP if applicable) are not within the same LATA and with Ameritech Illinois' local calling area where the call originates, AT&T shall bear the cost to transport such traffic between the POI and AT&T's switch.

4.3.2.2 The rate paid by the Originating Party to the Terminating Party shall be the same as the rate for Unbundled Dedicated Transport set forth in the Pricing Schedule.

4.3.3 When an expensive form of interconnection has been requested by AT&T resulting in a POI located outside the local calling area of Ameritech Illinois's end user originating the call, AT&T will be financially responsible for the transport outside the local calling are of Local/IntraLATA traffic and FX Traffic originated by Ameritech Illinois as follows:

4.3.3.1 For end office routed calls, AT&T will pay Ameritech Illinois the rates for Unbundled Dedicated Transport as set forth in Pricing Schedule for the distance between the Ameritech Illinois's end office where the traffic originated and the POI, less 15 miles.

4.3.3.2 For tandem routed call, AT&T will pay Ameritech Illinois the rates for Unbundled Dedicated Transport as set forth in Pricing Schedule for the distance between the Ameritech Illinois tandem and the POI, less 15 miles.

Response Dr. Zolnierek's proposal for Interconnection Issue 1 does not address the language of Article 4, Sections 4.3.1 through 4.3.3. Dr. Zolnierek's proposal for Interconnection Issue 1 addresses the language of Article 3, Sections 3.2.5.1 and 3.2.5.2. In his discussion of Interconnection Issues 5, 6, 7, 8 and 9, Dr. Zolnierek proposes to delete SBC's proposed Article 4, Section 4.3.2.1, 4.3.3, 4.3.3.1, and 4.3.3.2 language from the IA (Staff Ex. 1.0 at 41 and 47), proposes to delete AT&T's proposed Section 4.3.1 language from the IA (Staff Ex. 1.0 at 34), and proposes the following modified SBC language be included (Staff Ex. 1.0 at 34, 49):

*4.3.1. **Each Party shall provision and maintain its own one (1)-way trunks to deliver calls originating on its own network and routed to the other Party's network. Each Party will be responsible (including financial responsibility) for providing all of the facilities and engineering on its respective side of each point of interconnection ("POI") except as set forth in Section 4.3.2 below. AT&T must establish one or more POI(s) within the operating territory in the LATA where Ameritech-Illinois operates as an incumbent LEC and such POI(s) must be used by AT&T to originate AT&T Local/IntraLATA traffic in such LATA. Ameritech Illinois shall deliver its originating traffic to AT&T at AT&T's switch or such other mutually agreeable POI(s) and such switch or POI(s), whichever is applicable, must be within the LATA and within Ameritech Illinois' operating territory where the traffic originates.***

*4.3.2 **In a one (1) way trunking architecture, each Party originating Local/IntraLATA traffic ("Originating Party") shall compensate the Party terminating such traffic ("Terminating Party") for any transport that is used to carry such Originating Party's Local/IntraLATA traffic between the POI and the Terminating Party's switch serving the terminating end user or its designated Point of Presence ("POP") subject to the following conditions:***

Dr. Zolnierek did not make a recommendation with respect to the language of Article 4, Section 4.3.2.2, which was not, to his knowledge, directly addressed by either party (Staff Ex. 1.0 at footnote 68.).

In his discussion of Interconnection Issue 1, Dr. Zolnierek proposes to delete the language proposed by AT&T for Article 3, Section 3.2.5.1, and recommends that language addressing this issue be added to Article 3, Section 3.2.5.2 (Staff Ex. 1.0 at 26). Dr. Zolnierek proposes the following language for Article 3, Sections 3.2.5.1 and 3.2.5.2.

3.2.5.1 At least one POI must be established within each LATA where SBC-Illinois operates as an incumbent LEC and AT&T has a switch and End Users in that LATA. AT&T may designate the location of its POIs at any technically feasible point on SBC-Illinois' network, SBC-Illinois may designate the location of its POIs at any mutually agreed point on AT&T's network. The parties agree that POIs presently established on either Party's network satisfy the requirements of this section.

3.2.5.2 Each Party is responsible for the facilities to its side of the POI(s). Each Party is responsible for the appropriate sizing, operation, and maintenance of the transport facility(ies) between its switch locations, and the applicable POI(s). The Parties agree to provide sufficient facilities for the Interconnection trunk groups for the exchange of traffic between AT&T and SBC-Illinois. AT&T may, where it makes arrangements with a third party to do so, provide facilities on its side of the POI using a third party's tandem switch or other facilities. AT&T, however, remains responsible for the facilities on its side of the POI and for ensuring that any facilities provided by a third party comply with the provisions of this interconnection agreement.

Prepared by: Dr. Zolnierek